

IN THE CLAIMS:

The following listing of claims will replace all prior versions, and listings, of claims in the application.

1 – 42. (Cancelled)

43. (Currently Amended) A memory medium comprising program instructions for configuring a graphical user interface (GUI) element to subscribe to a data source, wherein the program instructions are executable to implement:

receiving user input specifying the data source, wherein the user input is received to a program development environment during creation of an executable graphical program that comprises a block diagram and a user interface, wherein the block diagram comprises a plurality of connected nodes which visually indicate functionality of the graphical program, and wherein said receiving user input specifying the data source comprises receiving user input specifying a uniform resource locator (URL) of the data source;

programmatically selecting a GUI element for inclusion in the graphical program after receiving the user input, wherein the GUI element is selected based on a data type of data provided by the data source;

displaying the selected GUI element in the user interface of the graphical program after said programmatically selecting; and

programmatically configuring the GUI element to receive and display data from the specified data source.

44. (Previously Presented) The memory medium of claim 43, wherein the GUI element is programmatically configured without user input specifying source code for this operation.

45. (Cancelled)

46. (Previously Presented) The memory medium of claim 43,
wherein said programmatically selecting a GUI element comprises
programmatically determining the GUI element based on one or more of: 1) a protocol
specified by the URL; and 2) a file extension specified by the URL.

47. (Previously Presented) The memory medium of claim 43, wherein said
programmatically selecting a GUI element comprises:

receiving data from the data source;
programmatically analyzing the received data; and
programmatically determining a GUI element operable to display the received
data.

48. (Previously Presented) The memory medium of claim 47,
wherein the data is received in a self-describing format;
wherein said programmatically determining a GUI element operable to display the
received data comprises programmatically determining a GUI element operable to
display data of the self-described format.

49. (Previously Presented) The memory medium of claim 43,
wherein the memory medium is comprised in a first computer;
wherein the data source is comprised in a second computer remotely located from
the first computer, wherein the first computer is operable to connect to the second
computer over a network;

wherein said programmatically configuring the GUI element comprises
programmatically configuring the GUI element to connect to the second computer and
receive and display data from the specified data source.

50. (Previously Presented) The memory medium of claim 43,
wherein said displaying the GUI element comprises automatically including the
GUI element in a user interface associated with the program.

51. (Cancelled)

52. (Previously Presented) The memory medium of claim 43, wherein the data source is one from the group consisting of:

- an HTTP server;
- an FTP server;
- an OPC server;
- an SNMP server;
- a DataSocket server; and
- a file.

53. (Previously Presented) The memory medium of claim 43, wherein said user input specifies both a data source and a data target with which to associate the GUI element;

wherein said programmatically configuring comprises programmatically configuring the GUI element to: 1) receive and display data from the specified data source; and 2) publish data associated with the GUI element to the specified data target.

54. (Previously Presented) The memory medium of claim 53, wherein the specified data source is the same as the specified data target.

55. (Previously Presented) The memory medium of claim 43, wherein the data is live data.

56. (Previously Presented) The memory medium of claim 43, wherein the data comprises measurement data received from an instrument.

57. (Currently Amended) A memory medium comprising program instructions for configuring an executable graphical program to display data, wherein the program instructions are executable to implement:

receiving user input during development of the executable graphical program specifying a data source, wherein the graphical program comprises a block diagram and a user interface, wherein the block diagram comprises a plurality of connected nodes which visually indicate functionality of the graphical program, ~~wherein the user input is received by the user interface,~~ and wherein said receiving user input specifying the data source comprises receiving user input specifying a uniform resource locator (URL) of the data source;

programmatically determining a graphical user interface (GUI) element operable to display data from the specified data source for inclusion in the graphical program, in response to the user input, wherein said programmatically determining operates to determine the GUI element based on a data type of data provided by the specified data source;

programmatically including the GUI element in the user interface of the graphical program;

programmatically configuring the graphical program to receive and display data from the specified data source in the GUI element during program execution.

58. (Cancelled)

59. (Currently Amended) A system for configuring a graphical user interface (GUI) element to subscribe to a data source, the system comprising:

a display device;

a processor;

a memory medium coupled to the processor, wherein the memory medium stores a first program;

wherein the processor is operable to execute the first program to:

receive user input specifying the data source during creation of a second program, wherein the second program comprises an executable [[second]] graphical program that comprises a block diagram and a user interface, wherein the block diagram comprises a plurality of connected nodes which visually indicate functionality of the graphical program, wherein said receiving user input specifying the data source

comprises receiving user input specifying a uniform resource locator (URL) of the data source;

programmatically select a GUI element for inclusion in the [[second]] graphical program after receiving the user input, wherein the GUI element is selected based on a data type of the data source;

display the selected GUI element in the user interface of the graphical [[second]] program after said programmatically selecting; and

programmatically configure the GUI element to receive and display data from the specified data source.

60. (Currently Amended) A method for configuring a graphical user interface (GUI) element to publish and subscribe to data, the method comprising:

receiving user input specifying a data source and data target, wherein the data source and data target are the same, and wherein said receiving user input specifying the data source and data target comprises receiving user input specifying a uniform resource locator (URL) of the data source and data target;

programmatically selecting a GUI element after receiving the user input, wherein the GUI element is selected based on a data type of the data source and data target;

displaying the selected GUI element in a user interface of a graphical program after said programmatically selecting, wherein the graphical program comprises a block diagram, wherein the block diagram comprises a plurality of connected nodes which visually indicate functionality of the graphical program; and

programmatically configuring the GUI element to receive and display data from the specified data source and publish data to the specified data target.

61. (Previously Presented) The memory medium of claim 43,

wherein said programmatically selecting the GUI element for inclusion in the program after receiving the user input comprises programmatically selecting the GUI element for inclusion in the program during creation of the program;

wherein said displaying the selected GUI element in the program after said programmatically selecting comprises displaying the selected GUI element in the program during creation of the program.

62. (Previously Presented) The memory medium of claim 57,
wherein said programmatically determining the GUI element operable to display data from the specified data source comprises programmatically determining the GUI element during creation of the program;

wherein said programmatically including the GUI element in the user interface of the program comprises programmatically including the GUI element in the user interface of the program during creation of the program.

63. (Cancelled)

64. (Previously Presented) The system of claim 59,
wherein said programmatically selecting the GUI element for inclusion in the second program after receiving the user input comprises programmatically selecting the GUI element for inclusion in the second program during creation of the second program;

wherein said displaying the selected GUI element in the second program after said programmatically selecting comprises displaying the selected GUI element in the second program during creation of the second program.

~~64~~ 65. (Currently Amended) The method of claim 60,
wherein said programmatically selecting the GUI element after receiving the user input comprises programmatically selecting the GUI element during creation of the program;

wherein said displaying the selected GUI element in the program after said programmatically selecting comprises displaying the selected GUI element in the program during creation of the program.

66. (New) A method for configuring a graphical user interface (GUI) element to subscribe to a data source, the method comprising:

receiving user input specifying the data source, wherein the user input is received to a program development environment during creation of an executable graphical program that comprises a block diagram and a user interface, wherein the block diagram comprises a plurality of connected nodes which visually indicate functionality of the graphical program, and wherein said receiving user input specifying the data source comprises receiving user input specifying a uniform resource locator (URL) of the data source;

programmatically selecting a GUI element for inclusion in the graphical program after receiving the user input, wherein the GUI element is selected based on a data type of data provided by the data source;

displaying the selected GUI element in the user interface of the graphical program after said programmatically selecting; and

programmatically configuring the GUI element to receive and display data from the specified data source.